

Date: November 15, 2004  
To: Hawaii Public Utility Commission  
From: Hawaii Renewable Energy Alliance  
Subject: Preliminary Comments on the PUC Initial Concept Paper: Electric Utility Rate Design in Hawaii, dated November 1, 2004

Aloha Chair Caliboso and Commissioners Kimura and Kawelo,

Mahalo for the opportunity to review the subject concept paper and to provide our preliminary comments. Our comments are included below on the following sections of the concept paper: (1) Regulatory Framework under RPS, (2) Regulatory Framework under PBR, (3) Power Market Simulation, and (4) Designing Electric Utility Rates in Hawaii.

1. Regulatory Framework under RPS. HREA understands that the PUC, with consultant support, will conduct an independent evaluation of renewable projects. It appears that a robust utility simulation will be developed, which will allow evaluation of alternate rate designs along with scenarios that meet the RPS law requirements. The following are our preliminary comments (reference the issues raised in paragraph 21 of the concept paper):
  - a. Regarding potential Hawaii renewable energy projects, HREA recommends that the PUC review and consider the results of the Renewable and Unconventional Energy Study conducted for the Hawaii Energy Policy Forum by WSB-Hawaii. (See <http://hawaiienergypolicy.hawaii.edu/papers/bollmeier.pdf>).
  - b. HREA observes that our RPS law differs significantly with the RPS mainstream in at least the following ways.
    - i) First, non-renewable sources are included (e.g., waste heat recovery from CHP, heat pumps, ice storage and quantifiable energy conservation measures). HREA recommends that the PUC scope its evaluation to include all of the "RPS" technologies.
    - ii) Second, while our RPS is considered a mandate, there are no penalties for non-conformance. HREA notes that the PUC has included evaluation of compliance mechanisms as part of this initiative.
    - iii) Third, prior to Act 95, a lot of effort had been expended by a number of parties to evaluate the feasibility of achieving 20% renewables by 2020. A similar effort has not been made to establish goals for the energy efficiency and conservation measures in our new RPS law.

Note: In light of a new focus provided by Act 95, HREA will seek support to: (a) rename the RPS law to something more descriptive, e.g., Renewable Energy and Energy Efficiency Portfolio Standards, or Energy Portfolio Standards; (b) clarify the term "quantifiable energy conservation measures," and (c) establish separate goals for renewables vs. energy efficiency vs. energy conservation measures.

- c. HREA recommends that the PUC evaluate alternative approaches to the implementation of RPS. Specifically, the timing and costs of RPS implementation will differ depending on which approach is used, for example: (a) industry-developed projects ala PURPA, (b) competitive bidding based on solicitations from the utility or the PUC, and (c) utility ownership. In addition to differences in timing and costs, there will be differences in impacts to the utility and the ratepayers.

2. Regulatory Framework under PBR. HREA understands that the PUC will investigate the feasibility of implementing Performance-Based Ratemaking (PBR) as a potential incentive for achieving RPS goals in Hawaii. The investigation will include an evaluation of the experience with PBR in other jurisdictions. The following are our preliminary comments (reference the issues raised in paragraph 29 of the concept paper):

- a. HREA supports competitive bidding on new generation, including renewable projects, based on detailed goals and requirements developed in IRP. We look forward to additional discussion on how competitive bidding might be implemented in Hawaii; and
- b. HREA observes that PBR may or may not play an important role in the competitive bidding process. For example, if the utility is allowed to do renewable projects and rate base their investments, would there need to be any additional incentive? On the other hand, if the utility is not allowed to compete directly, there could be a role for a PBR based on the utility's role in facilitating the process.

Note: HREA observes that the RPS law is not specific regarding implementation. It can be implied that the utility could purchase renewable power and/or install its own projects. HREA observes that where RPS has been successful, the utilities have employed a competitive bidding process, and we are not aware any mainland utilities that have installed and operated their own renewable facilities.

3. Power Market Simulation. HREA understands that the PUC will be consulting with Economists Incorporated ("EI"), an economic consulting firm composed of 36 economists in Washington DC and the San Francisco Bay Area in California. Their work will include the development and application of a computer simulation model for Hawaii's utilities. This model will allow evaluation of the following issues: investments in renewable energy generation capacity, existing or alternate regulatory regimes (such as PBR), electric utility rate design, and financial structures of the utilities. The following are our preliminary comments (reference the issues raised in paragraphs 40, 46 and 53 of the concept paper):

- a. HREA recommends modeling all technology aspects of our "RPS" law, e.g., large grid-tie renewable projects, distributed renewables, and energy-efficiency and energy conservation measures;
- b. Has the EI team dealt with the issue of using performance and cost estimates vs. competitive bids? If so, what were the results and the lessons learned?
- c. HREA recommends performing the baseline simulation utilizing data from the most current year available, e.g., 2003, maybe 2004;
- d. HREA recommends running the Status Quo simulation for at least 20 years, i.e., the same as the study period for our IRPs;
- e. HREA recommends evaluation of central generation (CG) vs. distributed generation (DG) options;
- f. HREA recommends running simulations that address the cross-class rate subsidizations in the existing utility rate structures; and
- g. HREA will provide specific input later on the Alternative Scenarios Simulations.

4. Designing Electric Utility Rates in Hawaii. HREA understands that the Alternative Scenarios will include evaluation of alternative PBR regimes and utility rate structures. Thus, the PUC anticipates that the results of the Alternative Scenarios Simulations will provide ample data and information from which to select a preferred electric utility rate structure. The preferred rate structure would then be developed in a follow-on rate design rulemaking process. The following are our preliminary comments (reference the issues raised in paragraph 58 of the concept paper):

- a. The overall approach appears to be sound. However, HREA believes the results will be heavily dependent on the overall goals to be achieved in the future rate structure. For example, HREA believes this will require providing the correct price and rate signals to electricity generators and electricity users/ratepayers;
- b. HREA supports the competitive bidding mechanism as a means for getting the price right. However, if there is to be some combination of competitive bidding and PURPA-style projects, then HREA recommends that the calculation of avoided cost be revisited; and
- c. HREA supports the removal of all cross-class subsidies in order to give the right price signal to the user/ratepayer. If this approach cannot be accomplished as part of the Act 95 initiative, then HREA recommends that it proceed as rapidly as possible as part of a separate PUC initiative.

Note: the overall thrust of the initiatives in Act 95 appears to be focused on the utility. HREA believes there should also be incentives to encourage users/ratepayers to invest in renewables, energy efficiency and energy conservation. HREA believes the removal of the cross-subsidies and rate re-design could provide the necessary incentives, when combined with existing and potential new government support mechanisms, to generate significant non-utility investments in renewables.

If you have any questions, please contact me at [wsb@lava.net](mailto:wsb@lava.net) or at my home office (247-7753). Mahalo again for the opportunity to review and provide comments on the concept paper.

Sincerely,

Warren

Warren S. Bollmeier II, President  
Hawaii Renewable Energy Alliance  
46-040 Konane PL #3816  
Kaneohe HI 96744